Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A method for reducing lock contention of concurrent transactions on a plurality of rows of a table in a relational data base system in response to a database query having a set of predicates, the method comprising the steps of:

(a) scanning all rows of the table within an access range determined by the query, wherein the scanning step (a) further comprising the step of:

(a1) accessing the rows of the table with uncommitted read semantics, wherein the accessing is performed through any current locks on the rows;

(b) evaluating each scanned row to determine whether the row satisfies the set of predicates, wherein the step of evaluating (b) includes

(b1) determining that a particular row does not satisfy the set of predicates of the query; ~~and~~

(b2) skipping the particular row, including skipping the particular row when a lock is currently held on the particular row and an update on the particular row has not yet committed while the lock is held, and continuing the scan; and

(b3) determining that a specific row satisfies the set of predicates of the query and returning the specific row, wherein the step of returning the specific row further comprises

requesting a lock on the specific row that satisfies the set of predicates;

suspending the scan, if the requested lock is refused;

repeating the request for a lock and re-evaluating the specific row when the lock is permitted; and

returning the specific row if the specific row still satisfies the set of predicates of the query.

2. (Canceled)

3. (Canceled)

4. (Canceled)

5. (Currently amended) The method of claim [4] 1, wherein the returning step (b3) further comprises the step of:

releasing the lock, skipping the specific row, and continuing the scan if the specific row no longer satisfies the set of predicates of the query.

6. (Currently amended) The method of claim ~~25~~ 1, wherein the returning step (b3) further includes the step of :

returning the specific row as a result set.

7. (Currently amended) The method of claim ~~25~~ 1, wherein the returning step (b3) further includes the step of:

returning the specific row if the specific row is a committed row.

8. (Original) The method of claim 1, wherein the database query is a SQL statement.

9. (Currently amended) An apparatus for reducing lock contention of concurrent transactions on a plurality of rows of a table in a relational data base system in response to a database query having a set of predicates, comprising:

means for scanning all rows of the table within an access range determined by the query, wherein means for scanning further comprising:

means for accessing the rows of the table with uncommitted read semantics, wherein the accessing is performed through any current locks on the rows;

means for evaluating each scanned row to determine whether the row satisfies the set of predicates, wherein the means for evaluating includes:

means for determining that a particular row does not satisfy the set of predicates of the query; and

means for skipping the particular row, including skipping the particular row when a lock is currently held on the particular row and an update on the particular row has not yet committed while the lock is held, and continuing the scan; and

means for determining that a specific row satisfies the set of predicates of the query and for returning the row, wherein the means for returning the specific row includes

means for requesting a lock on the specific row;

means for suspending the scan, if the requested lock is refused;

means for repeating the request for a lock and re-evaluating the specific row when the lock is permitted; and

means for returning the specific row, if the specific row still satisfies the set of

predicates of the query.

10. (Canceled)

11. (Canceled)

12. (Canceled)

13. (Currently amended) The apparatus of claim ~~12~~ 9, wherein the means for returning further includes means for releasing the lock, skipping the specific row, and continuing the scan, if the specific row no longer satisfies the set of predicates of the query.

14. (Currently amended) The apparatus of claim ~~26~~ 9, wherein the returned row is returned as a result set.

15. (Currently amended) The apparatus of claim ~~26~~ 9, wherein the row returned is a committed row.

16. (Original) The apparatus of claim 9, wherein the database query is a SQL statement.

17. (Currently amended) A computer readable medium containing programming instructions for reducing lock contention of concurrent transactions on a plurality of rows of a table in a relational data base system in response to a database query having a set of predicates, the programming instructions for:

(a) scanning all rows of the table within an access range determined by the query, wherein the scanning instruction (a) further comprising the instruction for:

(a1) accessing the rows of the table with uncommitted read semantics, wherein the accessing is performed through any current locks on the rows;

(b) evaluating each scanned row to determine whether the row satisfies the set of predicates, wherein the instruction for evaluating (b) further comprises the instructions for:

(b1) determining that a particular row does not satisfy the set of predicates of the query; ~~and~~

(b2) skipping the particular row, including skipping the particular row when a lock is currently held on the particular row and an update on the particular row has not yet committed while the lock is held, and continuing the scan; and

(b3) determining that a specific row satisfies the set of predicates of the query and returning the specific row, wherein the instruction for returning the specific row further comprises the instructions for:

requesting a lock on the specific row;

suspending the scan, if the requested lock is refused;

repeating the request for a lock and re-evaluating the specific row when the lock is permitted; and

returning the specific row if the specific row still satisfies the set of predicates of the query.

18. (Canceled)

19. (Canceled)

20. (Canceled)

21. (Currently amended) The computer readable medium of claim ~~20~~ 17, wherein the returning instruction (b3) further comprises the instructions for:

releasing the lock, skipping the specific row, and continuing the scan if the specific row no longer satisfies the set of predicates of the query.

22. (Currently amended) The computer readable medium of claim ~~27~~ 17, wherein the returning instruction (b3) further includes the instruction for:

returning the specific row as a result set.

23. (Currently amended) The computer readable medium of claim ~~27~~ 17, wherein the returning instruction (b3) further includes the instruction for:

returning the specific row if the row is a committed row.

24. (Original) The computer readable medium of claim 17, wherein the database query is a SQL statement.

25. (Canceled)

26. (Canceled)

27. (Canceled)